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+ proposed claim amendments

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Application No: 10/639,677
Attorney's Docket No: ALC 3414CLAIM AMENDMENTS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims

- * 1. (Currently Amended) An apparatus that establishes services that utilize policy-enabled resources in a communications network, comprising:
- a first policy enforcement point (PEP) ^{within a first domain,} ~~residing on a network element of the~~
communications network, that ~~identifies~~ ^{performs} identification of policy-enabled resources that are available and allocates requested policy-enabled resources to services;
- a first network resource controller (NRC) ^{the first} ~~within~~ ^{the} ~~[[a]]~~ domain on the communications network that makes requests, from available policy-enabled resources, of any policy-enabled resources ^{the} ~~within~~ ^{the} ~~[[a]]~~ first domain required to establish a particular service, ~~the requests from the available policy-enabled resources being separate from the identification of the policy enabled resources;~~ and
- a first resource policy layer (RPL) ^{within the first domain} ~~that establishes provisions, to a the particular service being established, and provisions the policy-enabled resources allocated to that the particular service, said first resource policy layer including a first policy description protocol decision point (PDP), wherein;~~

wherein policy management is separated from the management of policy enabled resources, and

2.

16 said first NRC acts as a trusted entity that initiates ~~an association~~ *a direct contact*
17 between said first PEP and said first PDP,
18 said first PDP provides said first PEP with ~~a policy~~ policies upon
19 establishment of said ~~association~~ *contact* between said first PEP and first PDP, and
20 when said first NRC requires resources from a second domain outside
21 the first domain, said first NRC signals a request to a second NRC in said
22 second domain, which acts as the trusted entity that initiates ~~an association~~ *a direct contact*
23 between a second PEP in said second domain and said first PDP, said first
24 PDP providing said second PEP with ~~a policy~~ the policies upon establishment
25 of said ~~association~~ *contact* between said second PEP and said first PDP, whereby
26 ~~there is a decoupling of policy management from the management of policy-~~
27 enabled resources.

Currently Amended

* 1 2. ~~(Previously Presented)~~ The apparatus as defined in claim 1, wherein said
2 first PEP comprises a plurality of virtual PEPs, each virtual PEP being associated
3 with
3 [1d] a respective service.

1 3-5. (Canceled)

* 1 6. (Currently Amended) The apparatus as defined in claim 1, wherein the
2 apparatus further comprises:

3 a second RPL associated with a ~~the~~ second domain comprising ^a ~~the~~ second
4 ~~[[PEP]]~~ PDP.

1 7. (Canceled)

1 8. (Previously Presented) The apparatus as defined in claim 1, wherein resource
2 capability information descriptors are used for resource discovery and policy
3 provisioning.

*

1 9. (Currently Amended) A method of establishing services that utilize policy-
2 enabled resources in a communications network, comprising:

3 identifying, at a first policy enforcement point (PEP), policy-enabled
4 resources within a first domain that are available and allocating requested policy-
5 enabled resources to services;

6 requesting, from available policy-enabled resources at a first network
7 resource controller (NRC) ^{within the first domain,} any policy-enabled resources required to establish a
8 particular service, ~~the requesting step being separate from the identifying step;~~

9 establishing the particular service with a first resource policy layer (RPL); ^{within the first domain}

10 and

11 provisioning, ^{with the first resource policy layer} to a ~~the~~ established service being established at a first resource
12 policy layer (RPL), the policy-enabled resources allocated to ~~that the~~ established

13 service, said first resource policy layer including ~~at least one a~~ first policy
14 ~~description protocol decision point (PDP), wherein:~~ ^{← wherein policy management is separated from the} management of policy enabled resources, ^{and}
15 said first NRC acts as a trusted entity that initiates ^{a direct contact} ~~an association~~ between
16 said first PEP and said first PDP,
17 said first PDP provides said first PEP with ~~a policy policies~~ upon
18 establishment of said ^{contact} ~~association~~ between said first PEP and said first PDP, and
19 when said first NRC requires resources from a second domain outside the
20 first domain, said first NRC signals a request to a second NRC in said second
21 domain, which acts as the trusted entity that initiates ^{a direct contact} ~~an association~~ between a
22 second PEP in said second domain and said first PDP, said first PDP providing said
23 second PEP with ~~a policy the policies~~ upon establishment of said ^{contact} ~~association~~
24 between said second PEP and said first PDP, ~~whereby there is a decoupling of policy~~
25 ~~management from the management of policy-enabled resources.~~

1 10. (Canceled)

1 11. (Currently Amended) The method as defined in claim 9, wherein virtual
2 PEPs of ~~a main the first~~ PEP are provisioned to provide resource services.

1 12. (Previously Presented) The method as defined in claim 11, wherein the
2 virtual PEPs are provisioned to provide services in said second domain.

1 13. (Previously Presented) The method as defined in claim 12, wherein said first
2 PEP and said second PEP are provisioned with the same service by said first PDP.

1 14-16. (Canceled)

* 1 17. (Currently Amended) The apparatus as defined in claim 1, wherein the first
2 PEP and the second PEP are virtual PEPs created upon request for ^{said} ~~said~~ [[a]]
3 particular service by one of the first NRC and the second NRC.

* 1 18. (Currently Amended) The method as defined in claim 9, wherein the first
2 PEP and the second PEP are virtual PEPs created upon request for ^{said} ~~said~~ [[a]]
3 particular service by one of the first NRC and the second NRC.

~~Canceled~~

* 1 19. (~~Currently Amended~~) An apparatus that establishes services that utilize
2 policy-enabled resources in a communications network, comprising:
3 a first network resource controller (NRC) within a domain on the
4 communications network, said first NRC requesting, from available policy-enabled
5 resources, any policy-enabled resources required to establish a particular service;
6 a virtual first policy enforcement point (PEP) residing on a network element
7 of the communications network that is created upon requesting the particular

8 service, said virtual PEP identifying policy-enabled resources that are available and
9 allocating requested policy-enabled resources to the particular service;

10 a resource policy layer (RPL) that establishes the particular service and
11 includes including a policy-description protocol decision point (PDP), wherein the
12 virtual PEP is provided with information to contact the PDP of the RPL in order to
13 provision the policy-enabled resources allocated to the particular service.

Canceled

* 1 20. (~~Currently Amended~~) A method of establishing services that utilize policy-
2 enabled resources in a communications network, comprising:

3 requesting, from available policy-enabled resources at a first network
4 resource controller (NRC), any policy-enabled resources required to establish a
5 particular service;

6 creating a virtual first policy enforcement point (PEP) upon requesting the
7 particular service;

8 identifying, at the virtual PEP, policy-enabled resources that are available
9 and allocating requested policy-enabled resources to the particular service;

10 providing the virtual PEP with information to contact a policy ~~description~~
11 ~~protocol~~ decision point (PDP) of a resource policy layer (RPL);

12 establishing the particular service with a first resource policy layer (RPL);
13 and

14 provisioning, to the particular ~~established~~ service ~~being established at the~~
15 ~~resource-policy-layer (RPL)~~, the policy-enabled resources allocated to the particular
16 service.